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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09 717,512 | 11 22 2000 | Masanobu Ohkata | P107350-00003 | 2062 |

7590 12 05 2001
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| EXAMINER | |
|------------------|--------------|
| BARRY, CHESTER T | |
| ART UNIT | PAPER NUMBER |
| 1724 | |

DATE MAILED: 12 05 2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/717.512

Applicant(s)

OHKATA ET AL.

Examiner

Chester T. Barry

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 15-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6 and 9-13 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 7, 8 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.

- 4) ☐ Interview Summary (PTO-413) Paper No(s): _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

Applicants' election without traverse is noted.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Bender.

Bender (see entire document, including col 18 lines 19-35) describes decomposition of organic chlorine compounds in soil using nitrifiers. Hence, the description reads on applicants' claim 1 because applicants' "object to be processed" reads on inter alia soils, e.g., Bender's contaminated soil, a "first microorganic body capable of oxidizing reduced nitrogen" reads on Bender's nitrification bacteria, and applicants' "decompose" reads on at least partial decomposition and not necessarily requires that a given chlorinated organic compound be decomposed to carbon dioxide and water.

Claims 2, 3, 6, 10, 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bender.

Per claims 2, 6 it would have been obvious to have added the material, e.g., ammonia, on which nitrifiers depend for metabolism, to the extent the in situ environment might not support them.

Per claims 3, 6, it would have been obvious to have conducted the process in an aerobic environment to facilitate oxidation of ammonia or other reduced forms of nitrogen.

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Per claim 10, it would have been obvious to have supplemented the reactor with commercially obtained bacteria, which are frequently and conventionally supplied in lyophilized form.

Per claim 12, it would have been obvious to have optimized pH because pH is a known result-effective variable in microbiological reaction systems.

Per claim 13, it would have been obvious to have optimized the amount of reduced nitrogen added because this variable is a known result-effective variable in microbiological reaction systems.

Claims 9 – 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 9 is rejected under §112, 2nd ¶, for want of claim 3 to recite an anaerobic treatment. Claims 10 and 11 are rejected under §112, 2nd ¶, for want of claim 1 to recite a second microorganic body. Claims 12 and 13 are rejected under §112, 2nd ¶, for recitation of "and/or".

Claims 4, 5, 7, 8, 14 are objected to as being dependent on a rejected base claim, but would be allowable if presented in independent form.

Chester T Barry

703-306-5921

12/3/01